

Please amend the paragraph beginning at page 8, line 20, as follows:

Q2
--The heat treatment is performed at a temperature between the softening temperature and the pyrolyzing temperature of the fiber. At a significantly low temperature within the above range, the resulting nonwoven fabric exhibits low mechanical strength due to insufficient hot melting, resulting in damage when an active material paste is loaded. At a significantly high temperature, the porosity decreases due to melt of the fibers, resulting in a decreased loading density of an active material paste. When the above-mentioned core-sheath composite fiber is used, the heat treating temperature is preferably in the range of 120°C to 140 C. The entangling treatment and the heat treatment may be independently performed. Preferably, the nonwoven fabric is entangled and is then heated to significantly improve mechanical strength thereof.--

Please amend the paragraph beginning at page 9, line 9, as follows:

Q3
--Sulfonation may be performed by immersion treatment using, for example, fuming sulfuric acid, sulfuric acid, sulfur trioxide, chlorosulfuric acid or sulfonyl chloride. Among these, sulfonation using fuming sulfuric acid is preferable due to high reactivity. Any gaseous fluorine treatment may be effective in the present invention. For example, the nonwoven fabric may be exposed to a mixed gas of gaseous fluorine diluted with an inert gas such as nitrogen or argon, and at least one gas selected from oxygen, carbon dioxide and sulfur dioxide. When the nonwoven fabric is exposed to gaseous sulfur dioxide and then gaseous fluorine, the nonwoven fabric is effectively and permanently hydrophilized. Any vinyl monomer grafting treatment may be used in the present invention. For example, the nonwoven fabric is immersed in a grafting solution containing at least one monomer selected

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from acrylic acid, methacrylic acid, an acrylic ester, a methacrylic ester, vinylpyridine and styrene, and then is irradiated with ultraviolet rays. Among these monomers, acrylic acid is preferable since this monomer does not cause scaling off of the plated metal film and an increase in surface resistance in use over long time in an aqueous 20-35 weight% KOH solution, which is used as an electrolyte solution.--

Between pages 21 and 22, please insert the following:


--TEST 3

04
Batteries 1, 4, 7, 10, 13, 16, 19, 22, and 25 used in TEST 2 were prepared. Each battery was charged for 6 hours at a charge rate $C/5$, wherein C was the capacity of the battery, and was allowed to stand for 1 hour. Next, the battery was discharged at a discharge rate of $10C$ until the voltage became 0.8 V to measure the discharge capacity C_1 at this time. The high-rate discharge characteristic R_1 represented by the ratio C/C_1 was thereby determined.

Furthermore, each battery was charged for 6 hours at a charge rate $C/5$ and was allowed to stand for 1 hour. The battery was discharged at 400 mAh until the voltage became 0.9 V. This charge/discharge operation was repeated 500 times to determine the high-rate discharge characteristic R_2 represented by C_{500}/C_{MAX} wherein C_{500} was the discharge capacity at the 500th cycle and C_{MAX} was the maximum discharge capacity in the 500 cycles.

Table 3 shows the high-rate discharge characteristics R_1 and R_2 .

Table 3



Battery	Positive Electrode	Negative Electrode	R1	R2
1	EXAMPLE 5	EXAMPLE 5	87	91
4	EXAMPLE 5	COMPARATIVE EXAMPLE 3	86	90
7	EXAMPLE 5	COMPARATIVE EXAMPLE 4	49	10
10	COMPARATIVE EXAMPLE 3	EXAMPLE 5	88	92
13	COMPARATIVE EXAMPLE 4	EXAMPLE 5	50	12
16	COMPARATIVE EXAMPLE 3	COMPARATIVE EXAMPLE 3	88	89
19	COMPARATIVE EXAMPLE 3	COMPARATIVE EXAMPLE 4	48	13
22	COMPARATIVE EXAMPLE 4	COMPARATIVE EXAMPLE 3	49	14
25	COMPARATIVE EXAMPLE 4	COMPARATIVE EXAMPLE 4	20	Undischarged